

Glenn Research Center, Environmental Programs Manual

Chapter 5 - MANAGEMENT OF HAZARDOUS MATERIALS AND HAZARDOUS WASTES FOR REUSE, RECYCLING, OR DISPOSAL

NOTE: The current version of this Chapter is maintained and approved by the Environmental Management Office (EMO). The revision date for this chapter is March 2003. If you are referencing paper copies, please verify that it is the most current version before use. The current version is maintained on the Glenn Research Center intranet at <http://osat-ext.grc.nasa.gov/emo/pub/epm/epm-contents.pdf>. Approved by: EMO Chief, Michael Blotzer {<mailto:Michael.J.Blotzer@nasa.gov>}.

PURPOSE

This chapter establishes GRC policy and procedures and assigns responsibilities for the management of hazardous materials and hazardous wastes. Soil that has been designated as hazardous is discussed in [Chapter 34, "Handling and Disposal of Soil"](#). The management of solid wastes is described in [Chapter 17, "SOLID WASTE"](#).

APPLICABILITY

This chapter applies to all organizational elements of Glenn and Plum Brook, particularly to employees involved with the processing and handling of hazardous materials or the disposal of hazardous wastes.

DEFINITIONS

Solid Waste

A solid waste is a material that, in general practice, is any discarded material not specifically excluded by the Resource Conservation Recovery Act (RCRA). A discarded material is any material (solid, liquid, or contained gas), which is abandoned (disposed, burned, or incinerated), recycled, or considered inherently waste-like. Basically, any material that does not have a continuing usefulness and is being discarded may be defined as a solid waste.

Hazardous material

A substance, or material that has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated. Title 49 CFR, Part 171.8.

Hazardous waste

Any substance or combination of wastes in solid, liquid, semisolid, or gaseous form which, because of its quantity, concentration, or physical, chemical, or infectious characteristics may (1) cause or significantly contribute to any increase in mortality or an increase in serious, irreversible, or incapacitating reversible illness or (2) pose a substantial present or potential hazard to human health, safety, or environment when improperly stored, treated, transported, disposed of, or otherwise managed. This includes wastes that singly, or in combination, require special handling, treatment, or disposal because they are, or may be, ignitable, radioactive, corrosive, reactive, toxic infectious, an irritant, or a strong sensitizer. For the purpose of this chapter it means any material that is subject to the Uniform Hazardous Waste Manifest requirements of the U.S. Environmental Protection Agency (U.S. EPA) as specified in Title 40 CFR, Part 262.

POLICY

As a requirement of our waste minimization policy, GRC's first priority is to reduce the amount of hazardous material (chemical reduction) used, second to reuse it, third to recycle it, and lastly to dispose of it as a hazardous waste.

It is GRC policy that special attention is given to the management of hazardous materials no longer required for ongoing institutional operations, research programs, or related activities. These hazardous materials are to be managed

in a safe and proper manner following the requirements and standards prescribed in the following authorities and GRC procedures.

AUTHORITIES

- Title 40 CFR, Parts 260-265, Protection of the Environment
- Title 49 CFR, Department of Transportation, Parts 100-177, Hazardous
- Materials Definitions
- NSS/FS 1740.7, August 1977, Safety Standard for Handlers of Hazardous Materials
- Public Law 94-580, Resource Conservation and Recovery Act
- Title 40 CFR, Part 61, Subpart M (Asbestos - NESHAPS)
- Title 40 CFR, Part 266, Recycling
- Title 40 CFR, Part 268, Land Disposal Restrictions
- Title 40 CFR, Part 273, Universal Wastes
- Title 40 CFR, Part 279, Used Oil
- Title 41, CFR, Part 101-42, Utilization and Disposal of Hazardous Material
- And Certain Categories of Property.
- NASA Handbook, NHB 4300.1, NASA Personal Property Disposal Manual

RESPONSIBILITIES

User

- The user cannot simply dispose of hazardous materials by indiscriminately throwing the material or waste into the trash container or dumping it down the drain.
- Ensures that each hazardous material or waste to be turned in is properly identified and labeled as to its contents and its potential hazard. The Waste Management Team (WMT) should be contacted at 3-2124 to assist in the identification and labeling of materials and wastes to be turned in.
- Prepares a NASA C-260a, "Waste Disposal Request", and submits it to the WMT for determination of proper disposal. The C-260a can be found in the Glenn Electronic Forms Library at:
<http://ltid.grc.nasa.gov/Eforms/InformedWEBPages/Glenn-NumericForms.htm>

Logistics and Technical Information Division (LTID) Property Disposal

Forwards the Glenn Property Disposal Turn-in Document, NASA C-260, as required, either to the WMT or the Environmental Compliance Team (ECT) to determine the ultimate disposition of materials or equipment that may contain a hazardous material or waste.

Environmental Compliance Team (ECT)

- Provides technical input to the Property Disposal Officer via the NASA C-260 for managing hazardous materials and disposing of equipment containing hazardous material.
- Provides technical direction, methodology, and consultation to any user for turn in of hazardous materials, equipment containing hazardous material, and soils containing hazardous materials.
- Provides analytical chemistry support for identifying unknown materials for identified for turn in for disposal.
- Assures that hazardous waste disposal contractors under contract to GRC conduct their activities at a licensed/permitted waste disposal facility.
- Maintains responsibility for signing all hazardous waste manifests. ECT shall investigate and inquire, as necessary, regarding shipments prior to signing the manifests. At Plum Brook, the Plum Brook Management Office (PBMO) maintains responsibility for signing all hazardous waste manifests.
- Performs at least one compliance audit per year on the Hazardous Waste Management function. Provides an audit report to the Chief of the Environmental Management Office (EMO). EMO issues orders to address audit deficiencies.

- Educates personnel on hazardous material and hazardous waste handling and waste reduction.

Waste Management Team (WMT)

- Develop and implements a program for managing hazardous materials and disposing of hazardous wastes.
- Provides documentation to the Property Disposal Officer records of shipment for disposal of hazardous wastes and materials.
- Recommends and educates to the user the proper procedures to be followed when turning in a hazardous material or disposing of hazardous waste. Also, educates all staff at GRC on hazardous material and hazardous waste handling and waste reduction/minimization.
- Coordinates the transfer of the hazardous materials and wastes to Building 212, the Central Chemical Storage Facility, for temporary storage (90-day maximum for materials determined to be a hazardous waste) while a means of reuse, recycling or disposal is determined.
- Determines whether hazardous material can be reused, recycled, or needs to be disposed of as hazardous waste.
- Coordinates the method of disposal being used with ECT.
- Arranges for a waste disposal contractor to pick up and deliver the hazardous waste to a disposal facility, as required.
- Reviews all supporting documentation for compliance with the provisions of Title 49 CFR, Department of Transportation, for the shipment of hazardous materials and Title 40 CFR, EPA, for the disposal of hazardous wastes.
- Prepares, packages, marks, labels, and certifies the packaging and crating of materials and wastes for shipment.
- Prepares Uniform Hazardous Waste Manifests for items such as oils, solvents, chemicals, and hazardous soils not covered by other FTED contracts in accordance with EPA and DOT specifications.
- Tracks all manifests to ensure they are accounted for and properly signed.
- Maintains original files on all hazardous and non-hazardous waste shipments for regulating agency review.
- Provides and maintains all records on required hazardous waste management and DOT training for GRC.
- Coordinates and provides required annual training updates.
- Prepares regulatory required and NASA reports.

Plum Brook Management Office

- Coordinates the transfer of the hazardous materials and wastes to Building 9206 for temporary storage (90-day maximum for materials determined to be a hazardous waste) while a means of reuse, recycling or disposal is determined.
- Maintains original files on all hazardous and non-hazardous waste shipments for regulating agency review.
- Maintains all records on required hazardous waste management and DOT training for PBS staff.
- Notifies WMT through the use of NASA GRC Form C-260a to arrange for a waste disposal contractor to pick up and dispose the hazardous waste.

NOTE: At Plum Brook, the PBMO shares the responsibilities with the WMT.

GUIDANCE

- Look around your work area to see if there are any chemicals being used that can be reduced in volume or are no longer needed. If any are found, talk to your supervisor and the WMT about minimizing or disposing of them.
- Look around your work area and see if there are any chemical, oil or fuel type wastes. If so ask your supervisor or the WMT whether they are considered hazardous waste. Prepare a Waste Disposal Request (NASA C-260) and submit it to the WMT.

- If it is not clear whether the waste is considered hazardous or not the WMT will help make the determination.
- Make sure that all hazardous wastes are stored for no longer than 60 days in your work area and that waste types are not mixed in the same container. Also check to be sure the container is labeled, covered and not leaking.
- Discuss with your supervisor and WMT ideas that might help reduce the volume or allow reuse or recycling of hazardous waste being generated in your area.
- Notify the WMT at 3-2124 for a hazardous waste pickup when the container is 3/4 full or 60 days of the 90-day period are up.
- Hazardous waste manifest must be signed by a member of ECT or Plum Brook Management Office.
- Only authorized hazardous waste transporters, recyclers and disposal sites will be used.

RECORDS

- United States Environmental Protection Agency Form 8700-22 (Uniform Hazardous Waste Manifest)
- Land Disposal Restriction (LDR) forms (accompany EPA Form 8700-22, as necessary)
- Certificates of Disposal
- Exception Reports
- Ohio Environmental Protection Agency Annual Generators Report
- Notification of Regulated Waste Activity, EPA Form 8700-12

Safety and Assurance Directories ([SAAD](#))

Environmental Management Office Chief, Michael Blotzer

Chapter Lead: Michael Bajorek {<mailto:Michael.Bajorek@grc.nasa.gov>}

Web Curator: Sandra Jacobson {<mailto:Sandra.Jacobson@grc.nasa.gov>}

Revision Date: March 2003